



RepairNet User Guide

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Introduction

In the past, the inspection data that certified technicians were able to access was limited to the information printed on the inspection report. Following a repair, technicians were required to itemize all details of the diagnosis and repair that they performed and then imprint and sign the Repair Data Form (RDF) document.

Internet technology allows for a significantly improved process that saves time and provides the technician with detailed inspection results, inspection and repair histories, and other resources.

The implementation of this technology is called AirCare RepairNet. It provides technicians with more information to assist them in their diagnosis as well as a more streamlined process for recording the details of the repair.

This user guide provides detailed instructions on the use of RepairNet. It includes background information on the Internet and an overview of RepairNet's functions followed by detailed instructions for each function. Users looking for information regarding other aspects of emissions diagnosis and repairs should refer to the AirCare Certified Emissions Repair Manual.

Conventions Used In This Manual

Throughout this manual there are references to words that appear on your computer screen. To be clear in making these references, the words appear differently from other text in this user guide. The conventions used are listed in the sections that follow. Note that some of the words appear in a blue font which will not be as apparent if this user guide is printed on a black and white printer.

Browser Menu Items

The words displayed across the top of an application window (for example a web browser) represent menu items. In this manual, these menu items and the items that appear in the drop-down menus will be shown in a bold font in quotation marks.

For example:

"Settings"

RepairNet Menu Items

When the RepairNet site is displayed in your browser window, there will also be another menu that is specific to what you can do with RepairNet. In this manual, these menu items and the items that appear in the drop-down list will be shown in a bold, blue, and widely spaced italicized font in quotation marks.

For example:

"Inspection Data"

Field Names

Fields are areas of a web page that you can type information into. They appear as a small empty box and usually have a name or a title beside them. In this manual, when a reference is made to a field name, it will be shown in a bold, blue, and widely spaced font in quotation marks.

For example:

"Password:"

Buttons

On RepairNet, as in many other web sites, there are "buttons" that perform some function when clicked. For example, clicking on a button labeled "Submit" will send certain information to another computer on the Internet.

When a button is referred to in this manual, it will be shown in quotations and, for RepairNet buttons, a small graphic representation will be shown in the left column.

For example:

Click the "Log In" button.

Getting Started

Internet Basics

Simply stated, the Internet is all about sharing information. The Internet is an interconnection of computer networks that allows individual computers to communicate with each other regardless of hardware, software, or geographic location.

Many types of communication can take place over the Internet but the most often used is the transfer of files over the world wide web (www). The world wide web is based on the *client/server* computing concept. A client computer sends requests for information and displays what is received. A server "listens" for requests and sends the requested file(s) to client computers. Servers can also direct client requests or data submissions to a third computer such as a database.

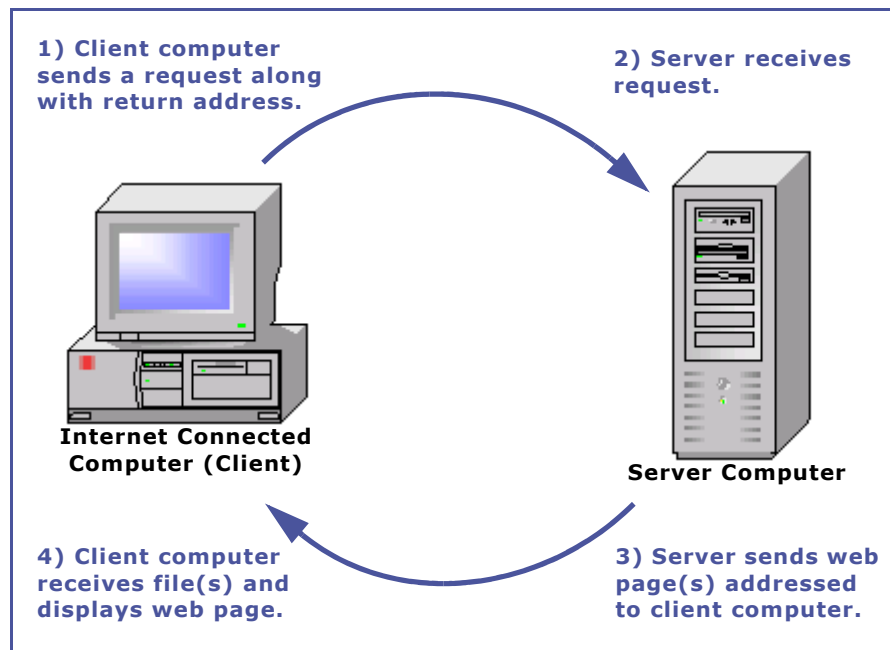


Figure 1: Client Server Relationship

How It Works

Connecting To The Internet

Computers are connected to the Internet through an *Internet Service Provider* or *ISP*.

In addition to having an account with the ISP, a user needs a physical connection to the ISP's system in order for their computer to be able to send and receive data. The ISP provides your computer with a unique numerical address so that it can communicate with other computers. This is called the *IP address* or

IP number. No two computers on the Internet can have the same IP address.

A computer or network of computers can be connected to an ISP using the following means:

- cable modem and coaxial cable connection
- asynchronous digital subscriber Line (ADSL) modem and phone line connection
- “tethered” to a mobile phone that has Internet access.

Each method of Internet access has its own advantages and disadvantages with regard to availability, cost, reliability, and speed. Each method has specific hardware requirements for the user’s computer. In some cases this special equipment can be rented from the ISP.

Regardless of the ISP and the type of internet connection, there can be considerable differences in the speed and reliability of the connection. Generally speaking, you get what you pay for, so if you have one of the cheaper options, you are most likely to experience considerable delays when downloading certain content such as PDF files (e.g AirCare Repair Newsletters), or perhaps incomplete page loads.

Internet Service Providers

ISPs facilitate the transfer of files from the web to all of their customer’s computers. Therefore ISPs need to have the ability to transfer large amounts of data. This requires expensive network hardware such as fibre-optic cables, routers, multiplexers, and switches.

Local ISPs are connected to regional systems or *carriers* that are capable of transferring even larger amounts of data. To transfer this huge amount of data at a reasonable speed, regional carriers have what is referred to as *a bigger pipe*. The bigger pipes may be multiple fibre-optic cables or they may be larger diameter fibre-optic cables.

Regional carriers are in turn connected to global carriers (also known as Tier 1 carriers). These companies have the most expensive and fastest equipment including cables that run on the ocean floor to connect the continents.

The Big Picture

If you can imagine countless digital ones and zeros being transmitted through a network of copper and fibre-optic cables all over the world—that is how the Internet works.

In Figure 2, a simple perspective of how individual computers are connected to the Internet is shown. The three levels of service providers (ISPs) or carriers are represented by progressively larger clouds. The clouds represent each carrier's extensive network of hardware, cables and connections that each carrier owns and maintains.

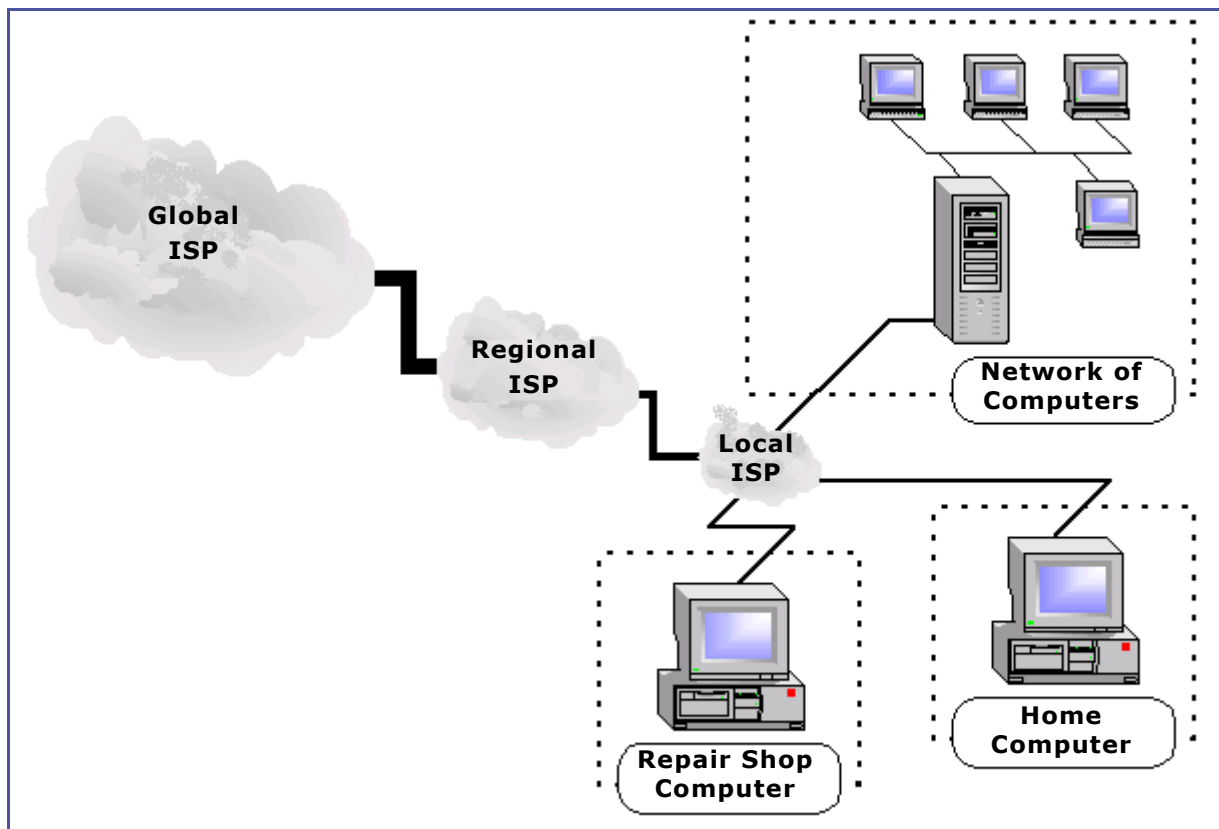


Figure 2: Internet Connections

Browser Basics

What Is A Web Browser?

A web browser is software that is installed on a client computer that provides the interface between the user and the Internet. It sends web page requests out over the Internet and renders the page on your monitor after the page is received.

Your computer will usually have browser software pre-installed. However, in most cases there is no requirement for you to use that browser. You can use whatever browser you wish.

Much like any other popular category of software there are many different browsers available. Most of the major browsers are available free of charge.

There are a few important things to be aware of regarding the browser that you use;

- All browsers are revised periodically and updated versions can improve performance significantly. Keeping your software current will help to minimize problems.
- Different browsers may display the same web pages differently. Some web sites are designed for IE because it is the most popular browser.
- RepairNet is designed to be compatible with all modern browsers. In the case of Internet Explorer, that means version 8.0 or higher.
- Browser settings can affect how a website looks on your screen and, in some cases, how the website works. For more information, see “Important Browser Settings for RepairNet” on page 9.

What Version Is Your Browser

To determine what browser is installed on your computer and what version it is:

- 1) Start the browser
- 2) Select “**Help**” from the menu bar. The menu that drops down will have an entry that starts with the word “**About**” followed by the name of the browser. For example: “**About Internet Explorer**”. The window that opens will display the version number and other information about your browser.

Browser Terminology

Uniform Resource Locator (URL)

The URL is a fancy name for the Internet address. This is what is typed in the browser’s address bar to direct the browser to what web site you want to view.

There are special “Domain Name Servers” on the Internet that translate what you type into your browser’s address bar into an IP address. This happens for every web page that you request. If it weren’t for these DNS servers, you would need to know the IP number for every site you wanted to visit.

Home Page

The page that is displayed when you first start your browser is called your *home page*. You can set this to be whatever page you want. Also, browsers usually have a button called “**Home**”. Clicking on this button will display your home page.

You may want to set RepairNet as your home page. That way you do not have to type in the URL when you want to connect with RepairNet—it will automatically come up when you start your browser. In addition you can easily go to RepairNet from anywhere else on the web by clicking your **“Home”** button.

To set your browser’s home page in Firefox or Internet Explorer:

- 1) Select **“Tools”**
- 2) Select **“Options”** or **“Internet Options . . . ”**
- 3) Type in the URL in the space provided under “Home Page”. To set RepairNet as your home page type:

http://repairnet.aircare.ca

The process is very similar in Chrome browser: select **“Settings”**, and look under the **“Appearance”** heading, you’ll find a link titled “Change” near where it says “Show Home Button”. Clicking that link produces the form to enter your desired home page.

Favorites and Bookmarks

Browsers give you the ability to store a list of URLs for web sites that you want to go back to in the future. Depending on your browser, this list may be called **“Favorites”** or **“Bookmarks”**.

To store a URL as a favorite in Internet Explorer:

- 1) Select **“Favorites”**
- 2) Select **“Add to Favorites . . . ”**
- 3) Click the “Add” button or highlight a folder where you would like to store the URL and then click “Add”. You can create a new folder by clicking the “New Folder...” button.

You can re-organize and rename your favorites if you wish. You will find this useful when you have more than a few dozen favorites and you can no longer easily find the the one you want.

To re-organize your favorites in Internet Explorer:

- 1) Select **“Favorites”**
- 2) Select **“Organize Favorites . . . ”**
- 3) Rename, move and delete your favorites by highlighting the folder or favorite and the clicking the appropriate button.
- 4) Click the “Close” button when finished.

Scroll Bars

If a web page is too large to be displayed on your screen, *scroll bars* will appear in the browser window that allow you to scroll either up and down or left and right.

The scroll bar will have a rectangle in it that represents what is being viewed on the screen and how much is not currently shown on the screen.

As with many other aspects of computers, there are a more than one way to use scroll bars:

- You can click on the arrow at the end of the scroll bar once and release the mouse button to move a little bit.
- You can click on the arrow and hold the mouse button down to scroll a greater amount.
- You can click anywhere in the scroll bar other than the arrow or the rectangle to move a whole bunch.
- You can click on the rectangle and, while holding down the mouse button, drag the rectangle to any point in the scroll bar.
- Also, using your keyboard, pressing the down arrow and up arrow keys will also scroll throughout the page.

It is a matter of personal preference how you move a page around on your screen. As well as using the mouse on the scroll bar, you can also use the "Page Up", "Page Down", and arrow keys on your keyboard to do the same thing.

HyperLinks

Browsing the web is made simple by the use of *hyperlinks* in web pages. Hyperlinks, or links for short, can be either words or images that are *clickable* and direct the browser to a different page without you having to type in a URL.



The mouse pointer will change to a hand with a pointing finger (as shown at left) when moved over a link. This applies to any kind of link—text or image.

Text hyperlinks usually show up in your browser window as underlined words. However, this is optional in some browsers. For more information on browser settings, see "Appearance Settings" on page 10.

The "Back" Button

Browsers usually have a number of "buttons" above the menu bar that provide one-click access to various functions. Probably the most often used browser button is the "Back" button.

When you click the **"Back"** button, your browser will reload the last page that was previously displayed. This is handy when you need to revisit a page that you previously viewed. You can back up several steps by clicking the "Back" button repeatedly.

However, there are other ways of doing the same thing which you may find easier or more suitable. Depressing and holding the "Alt" key on your keyboard and then depressing the left arrow key will do the same thing as the **"Back"** button. Also, clicking the right mouse button will display a list of options that usually includes "Back" This also does the same thing as clicking the back button.



“Reload” and “Refresh”

Because web pages are downloaded to your browser in chunks, sometimes a piece of the puzzle doesn't make it through in its entirety. The result is an incomplete web page or a page with errors in it. If this happens, click your browser's **“Refresh”** or **“Reload”** button to try again. This button will usually look like the circular arrow shown at left. Pressing the **“F5”** key on your keyboard will also do the same thing.

Search Engines

Search engines are browsing tools that are designed to sift through the huge number of web sites on the Internet and provide links to the pages that contain your search criteria.

A type of search function may be integrated into your browser but many people prefer to keep the URL of their favorite search engine stored in **“Favorites”** for quick access.

Searching the web is different from searching a web page that is currently displayed in your browser. If you want to search a page that is currently displayed (perhaps because it is a very long page), see page 38 of this user guide for an example of the built-in search function of Internet Explorer and Firefox.

Important Browser Settings for RepairNet

Most software applications have options or preferences that affect how the software works. Browsers are no exception—in fact, they have a lot of options you can set yourself (unless your system is configured in a way to not allow you to change browser settings).

There are certain optional settings in your browser that can affect how it works (or doesn't work) with RepairNet:

- Some functions on RepairNet use a computer language called Javascript. If Javascript is not enabled in your browser, you will not be able to use some aspects of RepairNet.
- Pop-up blocking may result in problems using RepairNet. If your browser has a pop-up blocker enabled, you should set to to allow pop-ups from <http://repairnet.aircare.ca>.
- Browser security settings that prevent or alter Javascript functionality may also create problems using RepairNet.

Other Browser Settings

Browsers usually have other optional components you can enable or disable such as an integrated search window or list of favorites.

Most of the browser appearance options are selected from the **“View”** menu on the browser. For example, in Internet Explorer, you can turn the **“Button Bar”** on or off by selecting **“View”**, and then **“Toolbars”**. A check mark beside the menu item indicates that it is already activated.

Because there are differences amongst the various browsers, it is best that you explore the view settings on your own machine to see what you can change and the effect that it has. You can always change the view settings back to how they were initially.

Appearance Settings

Browsers will usually give you options for changing the way web pages are displayed.

For example, in Internet Explorer, you have options for how links are displayed. To make it obvious what is a link and what isn't, you can set the links to always appear underlined or you can have links underlined only when you pass over them with your mouse pointer.

To change these settings:

- 1) Select **"Tools"** from the Internet Explorer menu bar.
- 2) Select **"Internet Options..."**
- 3) In the window that pops up, select the **"Advanced"** tab near the top right.
- 4) Scroll down to the line that says **"Underline links"** and make your selection from the options listed below that line.

Print Settings

Your browser may have several additional controls for how web pages will appear when printed. Most browsers allow you to change the settings for colors and whether images are printed or just the text.

If you don't need colors and graphics to be printed you can speed up the printing of web content using the following procedure:

- 1) Select **"Tools"** from the IE menu bar.
- 2) Select **"Internet Options..."**
- 3) In the window that pops up, select the **"Advanced"** tab near the top right.
- 4) Scroll down to the line that says **"Print background colors and images"** and click in the tick box to deselect the option.

Most browsers also allow you to adjust the orientation of the page when it is printed.

"Portrait" orientation is what you would normally use for most situations. An example of portrait orientation is shown near the top right corner of Figure 3.

"Landscape" orientation is sometimes more appropriate for printing things like graphs that may be relatively wide. If you find that things are cut off on the right hand side of the page when printing, try changing the page layout to landscape orientation.

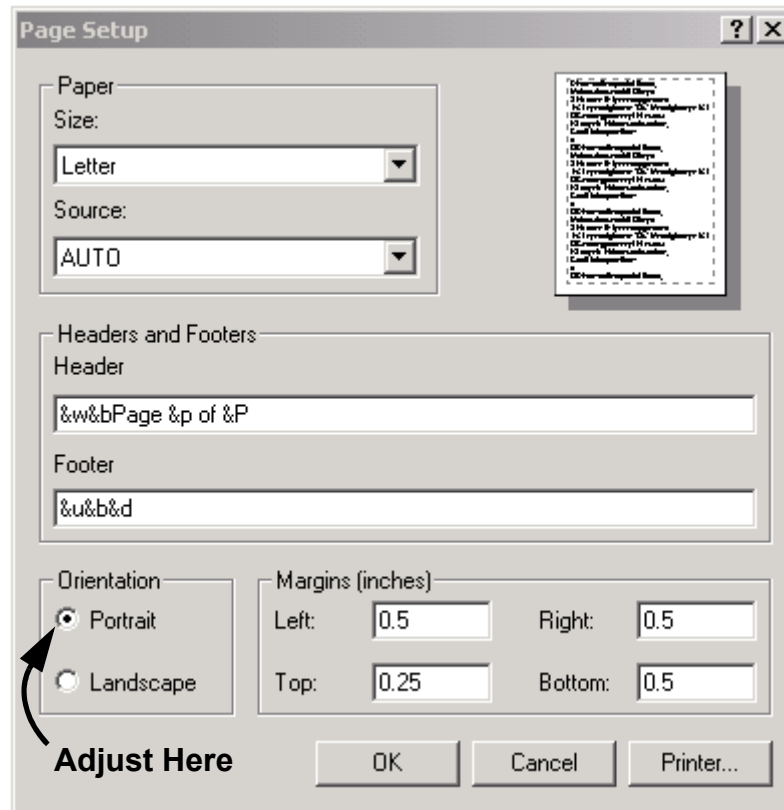


Figure 3: Adjusting Page Orientation in Page Setup

To change the page layout to either portrait or landscape:

- 1) Select **"File"** from the Internet Explorer menu bar.
- 2) Select **"Page Setup"**
- 3) Click beside *Portrait* or *Landscape* (see Figure 3). The current setting is identified by a black dot beside the selection.

Shrink To Fit On One Printed Page

Both IE and Firefox (and most other modern browsers) also give you the option of resizing the webpage content to fit onto a single printed page. To do this, first select **"Print Preview"** from the browser's **"File"** menu and select **"Shrink To Fit"** or alternately, scale to a particular percent.

RepairNet Basics

Just like the rest of the Internet, RepairNet is all about sharing information. RepairNet is a technologically advanced method of providing and gathering information. It utilizes the speed and convenience of the Internet to do the following:

- retrieve inspection details from the AirCare database
- retrieve previous repair data from the AirCare database
- display information of interest to emissions repair technicians such as standards, newsletters, and other technical resources
- upload repair details to the AirCare database

Although most areas of RepairNet are accessible without having to log-in, some areas require valid credentials to gain access.

Accessing Different Areas of RepairNet

	No Password Required	Technician Password Only	Repair Centre Password Only	Both Passwords Required
Vehicle Standards	✓			
Newsletters	✓			
Bulletins	✓			
Efficiency Calculator	✓			
Manuals	✓			
Inspection History	✓			
REI - Technician		✓		
REI - Facility			✓	
Change Address / Password		✓	✓	
Repair History		✓	✓	
Repair Data Form		✓ *		✓

Table A: RepairNet Access Requirements

* although you can enter repair data with technician login credentials only, it will not qualify a vehicle for a conditional pass. That requires login credentials for both the technician and the repair centre.

Providing repair details is an important function that is needed to ensure the program is on the right track. The *Code Of Practice*

requires that AirCare Certified Repair Centres provide these repair details for every repair performed.

RepairNet is the mechanism for providing repair data in the most efficient and accurate way. To do so, you must log-on to RepairNet.

Logging On

To log on to RepairNet you must have:

- your 6-digit technician ID number and password and/or
- your 5-digit repair centre ID number and password

Note that certain aspects of RepairNet require both a technician password and a repair centre password. Other features can be accessed with either a technician password only, a repair centre password only, or no password at all. For more details, refer to Table A on page 12.

To log on to RepairNet, follow this procedure:

- 1) Start your computer's browser. In the address bar type:

<http://repairnet.aircare.ca>

Actually, you only need to type "repairnet.aircare.ca" and hit the enter key on your keyboard. The browser will automatically insert the "http://" required at the beginning.

- 2) When the RepairNet home page appears, click "**Log In**" near the top left of the page.
- 3) Enter your ID number.
- 4) Enter your password. If you have forgotten your password, call PVT at 604-453-5165.
- 5) Finally, once you have completed each of the required fields, position your mouse pointer over the Log-In button and click the left mouse button. Alternately, pressing the enter key on your keyboard will also submit the data.

If the ID number(s) and password(s) you entered are valid, you should now be logged on the RepairNet, and your tech and/or shop ID will be displayed at the bottom of the page.

If You Aren't Able To Log-In To RepairNet

If the RepairNet log-in page is displayed in your browser but you are unable to log in to RepairNet, use the following procedure to pinpoint the problem:

- 1) Refresh the page and try again. Make sure you enter the correct technician and/or repair centre number.
- 2) Make sure that you are using the correct password. If you have changed your password, only you know what it is. If you have forgotten your password, see page 40.

If you are still not able to log on, it may be that your certification has expired or that you have been suspended. You can call PVT at 604-453-5152 if you wish to confirm your certification status.

If RepairNet Isn't Displayed In Your Browser

If you are trying to log-in and you can't get the RepairNet home page displayed in your browser, use the following procedure to pinpoint the problem:

- 1) Make sure you are using the correct URL:

<http://repairnet.aircare.ca>

- 2) Try to access other web pages. If you are not able to access any web sites, you have an Internet connection problem unrelated to RepairNet. Check your modem connection (might need a reboot) or contact your Internet Service Provider for assistance.
- 3) If you are able to access all other web sites but not RepairNet (the home page won't display in your browser), you should try again in ten minutes.

Logging Off

To log out of RepairNet simply click "**Log Out**" on the main menu near the top left of the page.

NOTE: after a certain amount of time with no activity, the system will automatically log you out. You will need to log in to RepairNet again before you can proceed.

Navigation Hints

The Main Menu

The main menu for navigation throughout RepairNet is always displayed along the top of the page. The menu options that are available depend on whether you are logged in to RepairNet. For example, when not logged in, you cannot access repair histories or submit repair data.

Clicking the large white AirCare RepairNet text in the blue banner (see Figure 4) will take you to the RepairNet start page.



Figure 4: RepairNet Main Menu

Each menu item or heading appears below the blue banner. If you position your mouse over a menu item, a drop-down menu will be triggered that contains additional menu items. If no drop-down menu appears, that means that there are no other choices under that heading. For example, "**Log In**" is a single menu item and no drop-down box will appear.

To make a selection from the main menu, move your mouse over the item that you are interested in and click the left mouse button.

What You Can Do On RepairNet

Providing repair details is an important function that is needed to ensure the program is on the right track. It is also necessary in the event that only partial repairs are completed to ensure the motorist is able to relicense their vehicle. The *Code Of Practice* requires that AirCare Certified Repair Centres provide these repair details for every repair performed.

RepairNet is the mechanism for providing repair data in the most efficient and accurate way possible. To do so, you must log-on to RepairNet.

Display Inspection Results

Vehicle inspection results can be accessed by entering either the registration number or the VIN in the form shown in Figure 5. This form is accessed by selecting "Inspection History" from the "Inspection Data" menu.



The screenshot shows a web form with two distinct input areas. The top area is titled "Enter Vehicle Registration" and includes a text box, an "Enter" button, and a validation message: "Vehicle registration number must be 8 digits." The bottom area is titled "or Enter a VIN" and includes another text box and an "Enter" button. The form is enclosed in a dashed border.

Figure 5: Vehicle Registration/VIN Entry Form

In some cases entering a VIN number to obtain inspection results may be more convenient than obtaining and entering the registration number. However, repair data cannot be entered unless you enter a vehicle's registration number. This is because British Columbia's vehicle licensing system is linked to the registration number and not the VIN. For info about entering repair data, see "Input Repair Data" on page 27.

After entering a vehicle's registration number, RepairNet will query the AirCare database and generate the AirCare Inspection History page (see Figure 6 on page 16). All inspections in the database will be displayed going back as far as September 1, 2000.

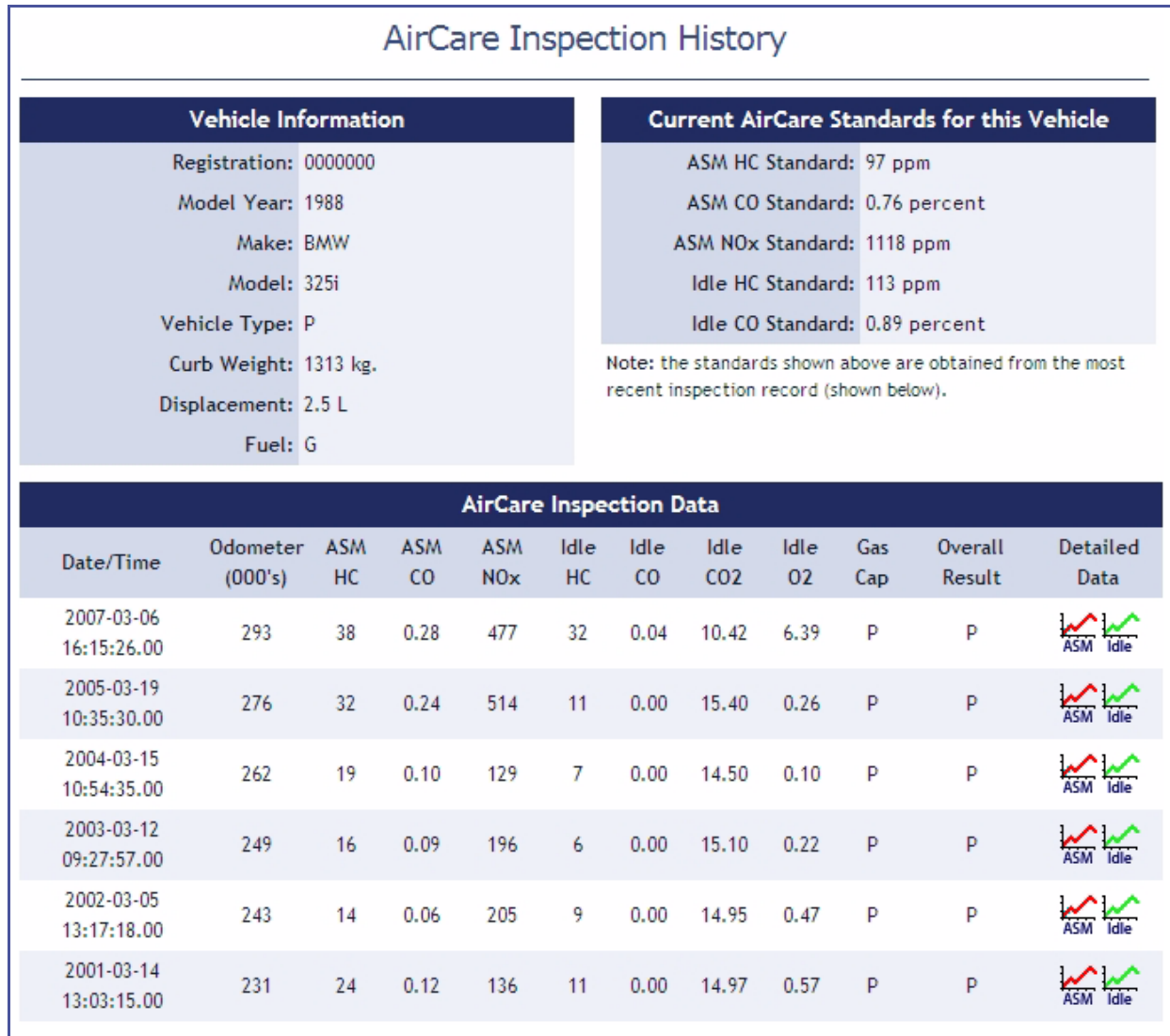


Figure 6: Inspection Results Display

Vehicle Information

The AirCare Inspection History page includes a block of information titled “**Vehicle Information**”. Most of the data in the “**Vehicle Information**” block is pretty self explanatory:

- “**Vehicle Type:**” will be either passenger vehicle (P) or truck (T). Note that the truck category includes vans and SUVs.
- The “**Curb Weight:**” shown is the registered vehicle curb (net) weight.
- The “**Fuel:**” shown is the fuel that the vehicle was running on when it was AirCare inspected (as reported by the motorist to the inspector).

Emission Standards

The AirCare Inspection History page includes a block of information titled **“Current AirCare Standards for this Vehicle”**

The emissions standards or cutpoints displayed will be those that applied to the most recent inspection of this vehicle.

- For ASM and Idle tests, the standards will be in parts per million (ppm) for HC and NOx, and in percent (%) for CO.
- For IM240 tests, the standards will be in grams per kilometre.
- For diesel opacity tests, the standard will be in percent opacity.
- For OBD tests, the standard is not a maximum tailpipe emission level but rather, a set of conditions that confirms that the vehicle's OBD monitoring status is okay (DLC is functional and less than 2 monitors are incomplete), and that the vehicle is operating as designed (MIL is not commanded on).

NOTE: If you find that the standards block is blank, it is probably because the most recent inspection the vehicle received is a full duration IM240 test for fleet analysis purposes. If so, there are no cutpoints applied because the test is for data analysis only. No standards will show up because the fleet analysis test is done immediately following the regular AirCare inspection.

Another means of getting the applicable AirCare standards is by selecting **“Inspection Standards”** from the **“Inspection Data”** menu. For more information see “AirCare Standards” on page 37.

Inspection Data

The AirCare Inspection History page includes a block of information titled **“AirCare Inspection Data”**. In the inspection data block each inspection is displayed on a single line showing the date of the inspection, the odometer reading recorded during the inspection, the readings and results, and one or more links to more details about each inspection (see next section for more details).

Display Detailed Data

Additional details of how the vehicle performed during the inspection are available on RepairNet.

The type of detailed data that is available will vary depending on the test type and the result. For tailpipe tests (Idle, ASM, IM240, & D147), second-by-second emissions measurements are provided in both graphical and tabular format. To access second-by-second data, click the applicable icon.

Figure 7 shows the various icons that you may see depending on the type of detailed data that it is linked to.



Figure 7: Icons For Various Types of Detailed Data

The icon shown on the far right in Figure 7 is unique. It appears when the test was aborted. In such cases, the test could not be completed, but the detailed data will provide you with specific reason *why* the test could not be completed, and in the case of OBD-II vehicles, the Readiness Monitor status.

For more information about the various types of detailed data available from RepairNet, refer to the following sections.

Second-By-Second Idle Results

The maximum duration of an idle test is 30 seconds. A vehicle may "fast pass" at any time between 10 seconds and 30 seconds provided that the measured emissions meet stability criteria and are less than the applicable maximum allowable. When a vehicle fails an idle test, the duration will be 30 seconds.

The graph shown in Figure 8 is an example of a failed idle test. You can see from the horizontal axis along the bottom of the graph that the duration of the test was 30 seconds. The different emissions are indicated by different coloured lines which can be determined from the legend near the top of the graph. The levels and units are indicated on the both sides of the graph (percent on the left for CO, O₂, and CO₂ and ppm on the right for HC).

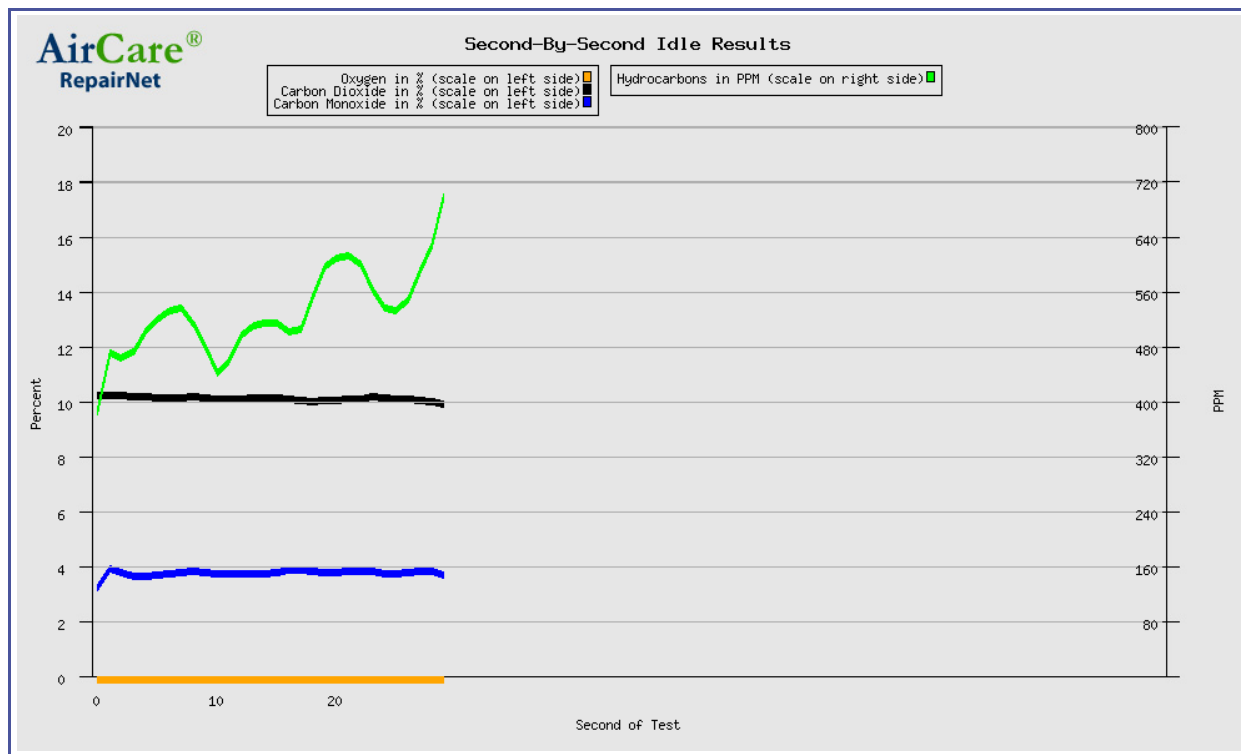


Figure 8: Second-By-Second Emissions Graph - Idle Test

Below the graph will be a table containing the same data displayed in the graph. Each line of the table represents one second of the test.

Second-By-Second ASM Results

The maximum duration of an ASM test is 90 seconds. A vehicle may "fast pass" at any time between 30 seconds and 90 seconds provided that the measured emissions meet stability criteria and are less than the applicable maximum allowable. When a vehicle fails an ASM test, the duration will be 90 seconds.

The graph shown in Figure 9 is an example of a failed ASM test. You can see from the horizontal axis along the bottom of the graph that the duration of the test was 90 seconds. The different emissions are indicated by different coloured lines which can be determined from the legend near the top of the graph. The levels and units are indicated on the both sides of the graph (percent on the left for CO, O₂, and CO₂ and ppm on the right for HC and NO_x).

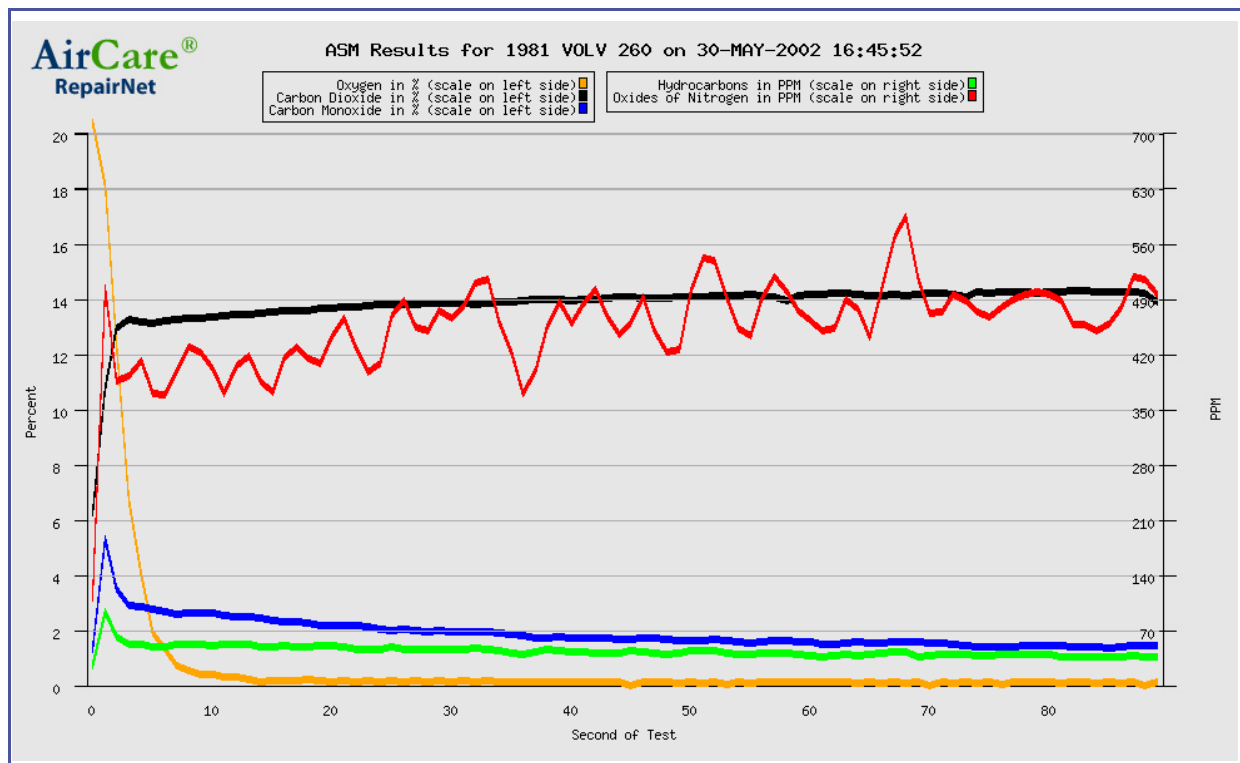


Figure 9: Second-By-Second Emissions Graph - ASM

Below the graph will be a table containing the same data displayed in the graph. Each line of the table represents one second of the test.

Second-By-Second IM240 Results

The maximum duration of an IM240 test is 240 seconds. A vehicle may "fast pass" at any time between 30 seconds and 240 seconds provided that the measured emissions meet stability criteria and are less than the applicable maximum allowable. When a vehicle fails an IM240 test, the duration will be 240 seconds.

The graph shown in Figure 10 is an example of a failed IM240 test. You can see from the horizontal axis along the bottom of the graph that the duration of the test was 240 seconds. The different emissions are indicated by different coloured lines which can be determined from the legend near the top of the graph. The levels are indicated on the both sides of the graph (percent on the left for CO, O₂, and CO₂ and ppm on the right for HC and NO_x).

Also shown on these graphs is an indication of the IM240 driving trace—the target vehicle speed for the each second of the test. This is a useful point of reference as to what sort of load or transient condition the vehicle is operating at.

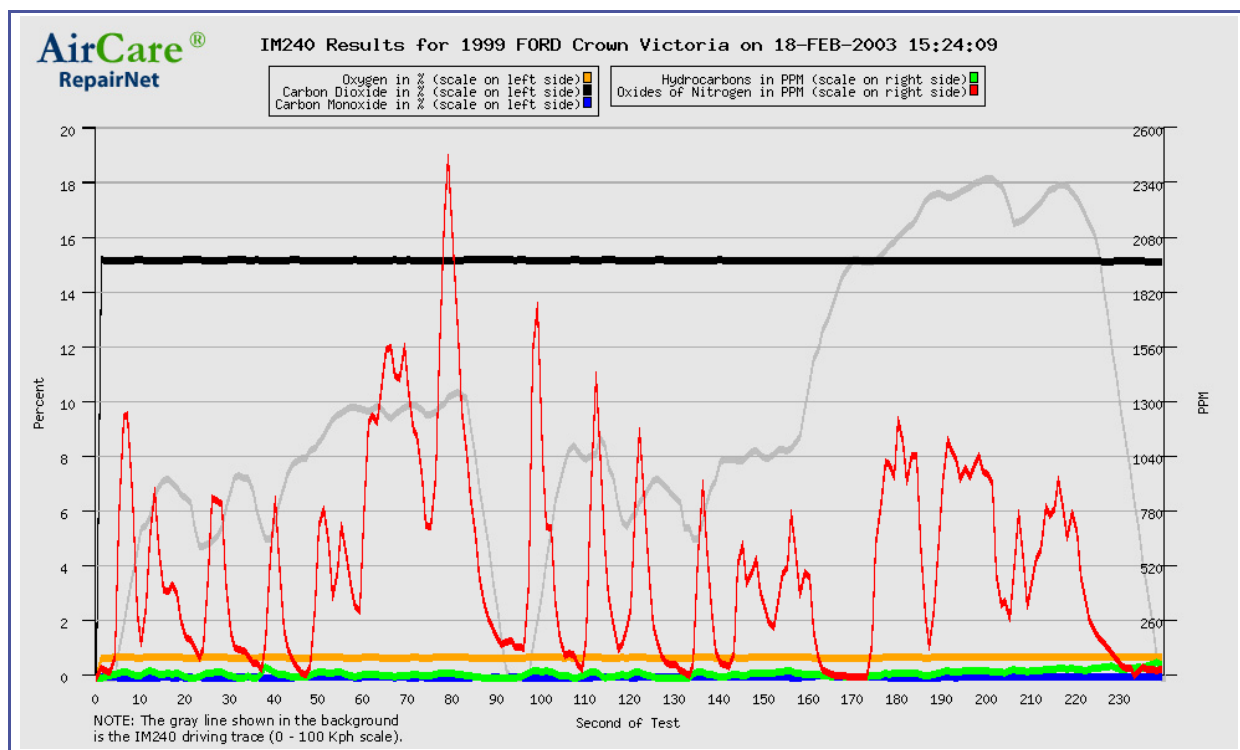


Figure 10: Second-By-Second Emissions Graph - IM240

Below the graph is a table containing the same data displayed in the graph. Each line of the table represents one second of the test.

NOTE: IM240 SBS readings will not be perfectly accurate for every scenario. IM240 SBS readings in ppm and % are derived from the actual emissions measurements during the test using a "reverse dilution correction formula". Because of the possibility of varying dilution error relative to changing exhaust flow conditions in a transient emissions test such as the IM240, these readings should be used with caution.

Second-By-Second D147 Results

The maximum duration of an D147 test is 147 seconds. A vehicle may "fast pass" or "fast fail" a D147 test.

The graph shown in Figure 11 is an example of a failed D147 test. You can see from the horizontal axis along the bottom of the graph that the duration of the test was 147 seconds.

The opacity of the exhaust is indicated by a red line. The level of opacity in percent is indicated on the left side of the graph.

Also shown on these graphs is an indication of the D147 driving trace—the target vehicle speed for the each second of the test. This is a useful point of reference as to what sort of load or transient condition the vehicle is operating at. The units of vehicle speed are shown on the right side of the graph.

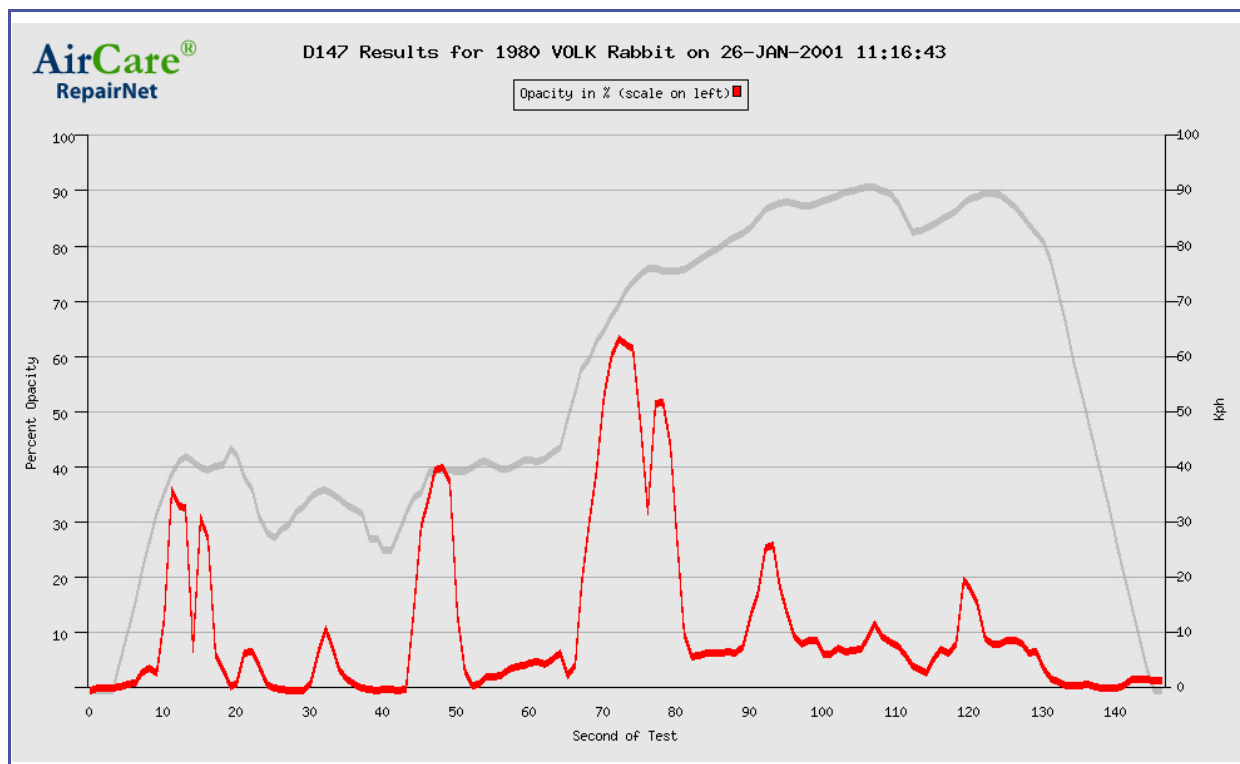


Figure 11: Second-By-Second Emissions Graph - D147

Below the graph is a table containing the same data displayed in the graph. Each line of the table represents one second of the test.

For more information on interpreting the data shown in any of the second-by-second graphs or tables, refer to Chapter 5 of the AirCare Certified Emissions Repair Manual.

OBD-II Codes

For vehicles that received an OBD inspection, the detailed data will include the Diagnostic Trouble Codes (DTCs) and the status of the applicable readiness monitors (see Figure 12).

Test Detail for 2000 NISS Pathfinder 14-JAN-2008 13:51:53	
DTC	Description
P0505	Idle Air Control System
P1490	<i>manufacturer specific</i>
P0446	Evaporative Emission System Vent Control Circuit
P1400	<i>manufacturer specific</i>
P1105	<i>manufacturer specific</i>
Readiness Monitor	Status
Misfire Monitor	Ready
Fuel System Monitor	Ready
Comprehensive Component Monitor	Ready
Catalyst Monitor	Ready
Heated Catalyst Monitor	Not Supported
Evaporative System Monitor	Ready
Secondary Air Monitor	Not Supported
AC System/Refrigerant Monitor	Not Supported
Oxygen Sensor Monitor	Ready
Heated Oxygen Sensor Monitor	Ready
EGR System Monitor	Ready

Figure 12: OBD II Detailed Data

If there were codes present at the time of inspection, the OBD-II result shown in the inspection data block will be "F". If the OBD-II result is "P", there will be no codes displayed if you click the OBD-II icon. Instead, the top section will state "No DTCs were retrieved". In either case, the bottom section will display the status of the applicable Readiness Monitors at the time of inspection. For more on Readiness Monitors, see Chapter 7 of the AirCare Certified Emissions Repair Manual.

Aborted Tests

For tests that were aborted, the detailed data will include an abort code and a brief description (see Figure 13).

Aborted tests usually relate to an adverse condition that results in the vehicle being either unsafe to test, or incapable of operating as required. For example, IM240 and D147 driving tests require the vehicle to accelerate to 92 km/hr (and decelerate) at a specific rate. If an engine defect or brake defect is causing the vehicle to be incapable of normal acceleration and braking, the test will be aborted.

Figure 13 shows some examples of the various reasons a test can be aborted.

Aborted Test Detail for 1992 DODG Caravan 17-MAR-2008 16:28:16	
Abort Code	Description
9	Inaccessible exhaust opening
Aborted Test Detail for 1990 VOLK Fox 17-MAR-2008 15:59:22	
Abort Code	Description
11	Sample dilution
Aborted Test Detail for 1989 MAZD 929 12-MAR-2008 15:04:35	
Abort Code	Description
1	Tire Problems
Aborted Test Detail for 1990 OLDS Cutlass 17-MAR-2008 16:22:28	
Abort Code	Description
8	Vehicle experiencing engine malfunction
Aborted Test Detail for 1991 FORD Explorer 18-MAR-2008 13:00:47	
Abort Code	Description
4	Fuel leak

Figure 13: Aborted Test Detail Examples

For OBD tests that were aborted due to a system readiness issue, the detailed data will include the abort code and the Readiness Monitor status (see Figure 14). The Readiness Monitor status is important because it allows you to determine (and prioritize) exactly which Readiness Monitors are preventing the vehicle from being testable.

For more details on preparing a vehicle for re-inspection (or initial inspection), see Chapter 7 of the AirCare Certified Emissions Repair Manual.

Aborted Test Detail for 2000 ACUR 3.2tl 08-JAN-2007 10:01:56	
Abort Code	Description
22	OBD readiness monitors not set

Aborted Test Detail for 2000 ACUR 3.2tl 08-JAN-2007 10:01:56	
Readiness Monitor	Status
Misfire Monitor	Ready
Fuel System Monitor	Ready
Comprehensive Component Monitor	Ready
Catalyst Monitor	Not Ready
Heated Catalyst Monitor	Not Supported
Evaporative System Monitor	Ready
Secondary Air Monitor	Not Supported
AC System/Refrigerant Monitor	Not Supported
Oxygen Sensor Monitor	Not Ready
Heated Oxygen Sensor Monitor	Ready
EGR System Monitor	Ready

Figure 14: Aborted Test Details - OBD Readiness Problem

Display a Vehicle's Repair History

Displaying a vehicle's *Repair History* requires valid log-in credentials for either a shop or a tech. Once you have logged in successfully, "**Repair History**" will appear as a selection under the "**Repair Data**" drop-down menu.

Data shown in the *Repair History* (see Figure 15) is the actual data that was submitted by the AirCare certified technician that did the previous diagnosis and repairs. For privacy reasons, the technician number and repair centre number are not displayed.

Repair History for Registration 99999999					
Repair Date	Total Cost Estimate	Parts Cost Estimate	Labor Cost Estimate	Defective Item(s) Not Repaired?	Repair Details
2008-03-18	\$1900	\$340	\$155	Y	Bank 1 Main Catalyst = R Cylinder Head = D Manifolds/Gaskets = D

Figure 15: Repair History

Looking at previous repair data can be helpful in certain circumstances:

- when reviewed in conjunction with previous inspection results, you can observe the effect of specific repairs made in the past and the effects those repairs had on emissions.
- conversely, you can observe which repair actions had little or no impact on a vehicle's emission performance.
- you can observe which recommended repairs were declined by the customer previously.
- you can easily identify vehicles which have been conditionally passed year after year because the motorist has not authorized the recommended repairs. In this scenario you may want to review the vehicle's repair history with the customer at the time the repair order is being written. You may be able to prevent a headache.
- when reviewing repair history, keep in mind that any outstanding defects are the results of another technician's diagnosis. There is no guarantee that a previous diagnosis was accurate or complete. Always perform your own thorough diagnosis!

Input Repair Data

Experience has shown that certain emission control components have a higher probability of failure. This may be factory components or after-market components. If technicians had the ability to draw upon other technicians experiences with similar vehicles and similar defects, it may save a lot of time and difficulty in tracking down the cause of a problem.

This holds true in many industries and vehicle manufacturers have been aware of this fact for decades. To assist technicians, they issue technical service bulletins (TSBs) once a pattern failure has been detected and confirmed. TSBs can be helpful because a technician can gain the benefits of many other technician's experiences with similar vehicles. Once a TSB is issued, this can save the technician time in arriving at a diagnostic conclusion.

The concept of collecting AirCare emissions repair data is very similar. Failure trends can be tracked and investigated by PVTT staff and, once they have been statistically validated, a bulletin or tech tip is published in the AirCare Repair newsletter.

Another important reason for collecting repair data is to quantify the cost versus benefit of the AirCare program. As with any emissions reduction initiative, the balance between costs and benefits is very important. In the case of AirCare, repair data submitted by certified shops is used to validate the estimated costs versus benefits.

Repair Data Form

The mechanism for collecting repair data is one of the key functions of RepairNet. The *Repair Data Form* allows the technician to submit data directly to the AirCare database without having to do any paperwork or use an imprinter to validate the data.

AirCare Certified Repair Centres must complete a *Repair Data Form* for each AirCare repair before the vehicle returns for re-inspection.

Repair Strategy Validation Procedure

Beginning in 2014, AirCare Certified Repair Centres may be required to obtain pre-authorization of their repair strategy before entering repair data. If that is the case with your shop, and you have already obtained pre-authorization for the specific vehicle you are working on, you can proceed with entering repair data.

If your shop is required to validate your repair strategy prior to entering repair data, and you have **not** done that, you will see a reminder screen like the one shown in Figure 16. Your options at this point are as follows:

Option 1 - Call PVTT and speak with PVTT staff (Ron or Brad) and obtain authorization to proceed with entering repair data. If it is agreed that your diagnosis, repair strategy, and repair priorities are appropriate, authorization will be given. Once that has

occurred, simply refresh your browser window (press the F5 key on your keyboard), and proceed with entering repair data. If the vehicle fails re-inspection, it will be given a conditional pass (provided there are no other restrictions that would prevent a conditional pass).

Option 2 - If you choose to proceed and enter repair data without validating your repair strategy first (Option 2 as shown in Figure 16: Repair Strategy Validation Reminder), the vehicle **will not qualify for a conditional pass**. However, for OBD repairs where you have verified your repair and OBD readiness, and therefore can be certain that the vehicle will pass re-inspection, you can go ahead and click Option 2 and enter repair data. Remember, if the vehicle fails re-inspection, it **will not be given a conditional pass**.

AirCare[®] REPAIRNET

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This Vehicle Has Not Been Pre-Authorized For Repair Data Entry

Vehicle Description: 1988 BMW 325i **Registration Number:** 06548793

In order to ensure that your repair data entry will qualify this vehicle for a conditional pass, you must first speak to Brad or Ron at the AirCare Program Administration Office (PVT), and obtain authorization to enter repair data. You can reach Ron at 604-453-5163, or Brad at 604-453-5172 between 8:00 am – 4:30 pm from Monday to Friday (excluding holidays).

If you have not completed all needed repairs, you must obtain authorization **BEFORE** you enter your repair data. If you fail to do so, the repair data will not qualify the vehicle for a conditional pass. Once you have obtained authorization, refresh this page (push F5 on your keyboard).

If you have completed all needed repairs (including the setting of readiness monitors), and you are sure that the vehicle will pass its' re-inspection, you can select Option 2 below, and proceed with entering your repair data without obtaining pre-authorization.

Option 1 - Call Ron or Brad

After you have called PVT and received validation of your repair strategy, you will be able to proceed with entering repair data. If the vehicle fails re-inspection, it will receive a conditional pass.

Option 2 - No Conditional Pass

If you click this box to proceed without having your repair strategy validated by PVT, the vehicle will **NOT** receive a conditional pass if it fails re-inspection. **You must be sure you have completely repaired the vehicle before proceeding.**

Figure 16: Repair Strategy Validation Reminder

How To Complete The Form

To enter a *Repair Data Form*, you normally must log in with both technician **and** repair centre credentials. If you are not working at an AirCare Certified Repair Centre but would like to enter repair data, you can just log on as a technician and proceed as normal. However, the repair data you enter will not qualify the vehicle for a conditional pass.

The following sections detail the various aspects of entering repair data. Much of the data entry is simply a matter of selecting one of the repair action choices from a drop-down list. The choices available to select as a repair action will vary depending on the item or system. The available selections may be any of the following:

D - Defective but not repaired

S - Serviced, adjusted, or reconnected

M - Missing

R - Replaced

In some cases not all of these choices are available. For example, some components cannot be marked as "Defective but not repaired".

No selection (blank) indicates that the component is okay or not applicable to the emissions repair. This means that either the component has been tested and is working properly or, the component has nothing to do with the failure or, the component never existed on this vehicle.

After making a selection from any of the drop-down lists, please take care to ensure that you do not inadvertently change your selection. This can sometimes happen if you use a mouse equipped with a scroll wheel because when a pull-down list is selected, the scroll wheel may scroll through the pull-down list selections rather than scroll the webpage like it normally would.

To enter repair data follow this procedure:

- 1) Log on to RepairNet with both technician **and** repair centre credentials (to find out how to log on to RepairNet see "Logging On" on page 13). You can log in with just technician credentials and enter repair data, but that repair data will not qualify a vehicle for a conditional pass.
- 2) Enter the registration number for the vehicle.
- 3) Select "**Submit Repair Data**" from the "**Repair Data**" drop-down menu.
- 4) Enter the applicable data in the "**Repair Information**" block and other blocks as appropriate. You only need to enter the data that is relevant to the repair. All repair items that are left blank will default to OK/Not Applicable in the database.
- 5) After all repair data has been input, move your mouse pointer to the "Submit Repair Data" button and click the left mouse button.

A confirmation page that summarizes the RDF information will then be displayed on your screen. At this point you must print out a copy of the **Repair Data Confirmation Form** and give it to your customer.

That's it! In the sections that follow, more detail is provided for each area of the *Repair Data Form*.

Repair Information Estimated Cost

Allowable Entries = 0 - 9999

Enter the total estimated repair costs including taxes for all repairs (parts and labour) needed to bring the vehicle into full emissions compliance. DO NOT enter a dollar sign and DO NOT enter cents.

NOTE: If all of the needed repairs have been completed, this amount will equal the total of parts and labour costs below. If all of the needed repairs have not been completed, this estimate should include all costs for the work you have completed to this point plus all additional costs that will be necessary to fully repair the vehicle's emissions problem(s).

Actual Parts Cost

Allowable Entries = 0 - 9999

Enter the total parts cost for repairs that you have completed to the vehicle. DO NOT enter a dollar sign and DO NOT enter cents.

NOTE: This figure should not include any parts costs for repairs that have not been completed. This figure should include only the parts costs for repairs which have been completed.

Actual Labour Cost

Allowable Entries = 0 - 9999

Enter the total labour cost for repairs that you have completed to the vehicle. DO NOT enter a dollar sign and DO NOT enter cents.

NOTE: This figure should not include any labour costs for repairs that have not been completed. This figure should include only the labour for diagnosis and the repairs which have been completed.

Work Order No.

Allowable Entries = up to 10 alpha-numeric characters.

Enter your shop's work order number for the vehicle you are working on.

Warranty

Warranty could mean manufacturer's warranty, after-market warranty, or your shop's warranty on repairs previously attempted.

If emissions repairs were performed that were covered under warranty, click in this box (a tick mark will appear). In this case, the "**Estimated Cost**" total should be what the total costs would have been if there were no warranty coverage. The "**Actual Parts Cost**" and "**Actual Labour Cost**" should be zero unless there were additional emissions repairs performed that were not covered under warranty.

Repair Information (required)

Enter your estimate of the total cost of repairs needed to bring this vehicle back into compliance with Canadian federal emission standards. Then enter the actual costs for the work you have **completed**. You must fill in all costs (rounded to the nearest dollar) and the Work Order No (up to 10 alphanumeric characters).

Estimated Cost: (\$)

Actual Parts Cost: (\$)

Actual Labour Cost: (\$)

Work Order No:

Warranty:
☐

Figure 17: Example Repair Information

O2/AF Sensor Measurements

If required, or if applicable, enter the O2/AF sensor measurements both before and after repair.

Both the maximum voltage and minimum voltage can be determined from one set of throttle snaps. Also, the response time can be determined from the same measurements recorded for the maximum and minimum voltages. You do not need to repeat the procedure for each. For more information on these procedures, see Chapter 7 of the AirCare Certified Emissions Repair Manual.

NOTE: The main reason for the requirement to measure and record O2 sensor values is that history has shown the vast majority of ineffective emissions repairs are due to the technician failing to examine the performance of the closed loop system using a conclusive diagnostic procedure. This is by far the number one cause for erratic emissions readings, inconsistent test results, customer complaints, and comebacks. To minimize this possibility, it is mandatory that you perform O2 sensor performance checks on every vehicle equipped with an O2 sensor (except OBD-II failures).

Maximum Voltage

Allowable Entries (volts) = 0 - 9

Allowable Entries (millivolts) = 0 - 999

Record the highest voltage that the O2 sensor is capable of generating. To accurately measure this, you must force the system

rich while monitoring the O2 sensor voltage with a digital storage oscilloscope (DSO). Quickly snap the throttle several times and then press the button on your DSO that freezes the waveform. Then note the highest voltage in the waveform and record it in the "**Maximum Voltage**" fields.

NOTE: there are two fields for entering O2 sensor maximum voltage. Enter millivolts (0 - 999) in the millivolts field and enter volts (0 - 9) in the volts field. If maximum voltage is less than 1 volt, enter zero in the volts field (see example in Figure 18).

NOTE: where applicable, maximum current output from wide-band air fuel sensors can be entered in the millivolt field.

Minimum Voltage

Allowable Entries (volts) = 0 - 9

Allowable Entries (millivolts) = 0 - 999

Record the lowest voltage that the O2 sensor is capable of generating under a lean condition. To measure this, you must force the system lean while monitoring the O2 sensor voltage with your digital storage oscilloscope (DSO). Quickly snap the throttle several times and then press the button on your DSO that freezes the waveform. Then note the lowest voltage in the waveform and record it in the "**Minimum Voltage**" fields.

NOTE: there are two fields for entering O2 sensor minimum voltage. Enter millivolts (0 - 999) in the millivolts field and enter volts (0 - 9) in the volts field. If minimum voltage is less than 1 volt, enter zero in the volts field (see example in Figure 18).

NOTE: where applicable, minimum (negative) current output from wide-band air fuel sensors can be entered in the millivolt field.

Cross Counts

Allowable Entries = 0 - 99

Record the number of times in a 10 second period that the O2 sensor voltage crosses the mid-point of its range. Each upslope or downslope that crosses the mid-point should be counted as one cross count. This measurement should be made after 30 seconds with the engine operating at 2500 rpm.

NOTE: for wide-band air fuel sensors, simply enter zero in the cross count field.

Response Time

Allowable Entries = 0 - 999

Record the slowest amount of time that it takes for the voltage to rise from 300 millivolts to over 600 millivolts, or to drop from 600 millivolts to less than 300 millivolts. This measurement can be

obtained from the throttle snap test that you performed to obtain the minimum and maximum O2 sensor voltage.

NOTE: for wide-band air fuel sensors, simply enter zero in the response time field.

O2/AF Sensor Measurements BEFORE Repair (required)

Enter O2/AF Sensor Measurements BEFORE Repair for at least one sensor (B1S1). Enter numbers only. (volts can be 0-9, millivolts can be 0-999, Cross Counts can be 0-99, Response Time can be 0-999.)

	Bank 1 Front (B1S1)	Bank 2 Front (B2S1)	Bank 1 Rear (B1S2)	Bank 2 Rear (B2S2)
Maximum Voltage: (volts . millivolts)	0 . 978	<input type="text"/> . <input type="text"/>	<input type="text"/> . <input type="text"/>	<input type="text"/> . <input type="text"/>
Minimum Voltage: (volts . millivolts)	0 . 023	<input type="text"/> . <input type="text"/>	<input type="text"/> . <input type="text"/>	<input type="text"/> . <input type="text"/>
Cross Counts: (in 10 seconds)	8	<input type="text"/>	<input type="text"/>	<input type="text"/>
Response Time: (milliseconds)	56	<input type="text"/>	<input type="text"/>	<input type="text"/>

Figure 18: Example O2 Sensor Measurements

Repair Actions

Air Induction System

Available Entries = R, S, or D

If you have identified and/or repaired an emissions related defect(s) on any component of the air induction system, select the appropriate repair action for that component.

Remember that "S" is for serviced, adjusted, or reconnected. Cleaning a heat riser passage and re-attaching a stove pipe are examples of where "S" is an appropriate selection.

Catalytic Converters

Available Entries = R, S, D, or M

If you have identified and/or repaired one or more catalytic converters on the vehicle, select the appropriate repair action for that component. Separate fields are provided:

- Bank 1 Warm Up Catalyst
- Bank 1 Main Catalyst
- Bank 2 Warm Up Catalyst
- Bank 2 Main Catalyst

For vehicles equipped with just two catalytic converters, use the "**Bank 1 Main Catalyst**" and the "**Bank 2 Main Catalyst**" fields.

For vehicles equipped with only one catalytic converter, use the “**Bank 1 Main Catalyst**” field.

Computer Controls - General

Available Entries = R, S, or D

This section includes Powertrain Control Module (PCM) and PROM/Reflash. If you have identified and/or repaired an emissions related defect(s) on a computer controlled engine management system that is not otherwise described on the RDF, select the appropriate action in this section.

NOTE: specific input and output components are listed under different headings on the RDF.

Computer Controls - Inputs

Available Entries = R, S, or D

If you have identified and/or repaired an emissions related defect(s) on one or more of the inputs to the powertrain control module (PCM), select the appropriate repair action for that component.

Remember that “S” is for serviced, adjusted, or reconnected. Setting the TPS minimum voltage is an example of where “S” is an appropriate selection.

Computer Controls - Outputs

Available Entries = R, S, D, or M

If you have identified and/or repaired an emissions related defect(s) on one or more of the outputs from the PCM, select the appropriate repair action for that component.

Remember that “S” is for serviced, adjusted, or reconnected. Re-connecting the air injection diverter solenoid are examples of where “S” is an appropriate selection.

Cooling System

Available Entries = D, S, or R

If you have identified and/or repaired an emissions related defect on the cooling system, select the appropriate repair action for that component.

Remember that “S” is for serviced, adjusted, or reconnected. Topping up coolant level and tightening coolant hoses are examples of where “S” is an appropriate selection.

EGR System

Available Entries = R, S, D, or M

If you have identified and/or repaired an emissions related defect(s) on the exhaust gas recirculation (EGR) system, select the appropriate repair action for that component.

Remember that "S" is for serviced, adjusted, or reconnected. Cleaning out the EGR passage or re-connecting an EGR vacuum hose are examples of where "S" is an appropriate selection.

Emissions Control - Other

Available Entries = R, S, D, or M

If you have identified and/or repaired an emissions related defect(s) on any emission control system other than the EGR system, select the appropriate repair action for that component.

Remember that "S" is for serviced, adjusted, or reconnected. Cleaning the PCV orifice and re-connecting the purge hose are examples of where "S" is an appropriate selection.

Engine Mechanical

Available Entries = R, S, or D

If you have identified and/or repaired an emissions related defect(s) on the engine itself, select the appropriate repair action for that component.

Remember that "S" is for serviced, adjusted, or reconnected. Applying combustion chamber cleaner and adjusting valve clearance are examples of where "S" is an appropriate selection.

Evaporative Control System

Available Entries = R, S, D, or M

If you have identified and/or repaired an emissions related defect(s) on any component of the evaporative control system, select the appropriate repair action for that component.

Remember that "S" is for serviced, adjusted, or reconnected. Repairing a cracked vent hose or cleaning a poor electrical connection at a purge solenoid are examples of where "S" is an appropriate selection.

Fuel Delivery System

Available Entries = R, S, or D

If you have identified and/or repaired an emissions related defect(s) on any carburetor, alternative fuel device, or fuel injection component, select the appropriate repair action for that component.

Remember that "S" is for serviced, adjusted, or reconnected. Cleaning throttle plates, setting minimum air rate (adjusting

throttle plates), and cleaning injectors are all examples of where "S" is an appropriate selection.

Ignition System

Available Entries = R, S, or D

If you have identified and/or repaired an emissions related defect(s) on any component of the ignition system, select the appropriate repair action for that component.

Remember that "S" is for serviced, adjusted, or reconnected. Overhaul of a centrifugal advance mechanism, adjustment of initial timing, and reconnection of a spout connector are all examples of where "S" is the appropriate selection.

Additional Diagnostic / Repair Details

Available Entries = text

Additional comments or information related to the diagnosis and repair of the vehicle can be entered in the "General Comments" sections.

The General Comments section should also be used to indicate partial repairs that were completed but have also been entered as defective but not repaired. For example, you have diagnosed that the fuel injectors are restricted and you have attempted to clean them but they are still defective. You should select "D" for fuel injector and write in the *General Comments* section that you diagnosed restricted injectors, you attempted to clean them by performing an injector flush, but they are still restricted.

The fields are limited to 80 characters however, three fields are provided in case you want to enter more information. If this still isn't enough space to enter all of the information that you want to, you can record the additional information with your own records (the work order) if you wish.

AirCare Standards

Emission standards or cutpoints are available from RepairNet in two ways:

- you can get standards for a specific vehicle by entering the necessary vehicle details.
- or, you can download a single PDF file containing all AirCare standards grouped by test type, model year, vehicle type, vehicle weight, and engine displacement.

To retrieve specific standards:

- 1) From the **"Inspection Data"** main menu select **"Inspection Standards"**.
- 2) From the **"Vehicle Type:"** pull-down menu select **"Passenger Car"**, **"Truck or Van"**, or **"Diesel-Fueled Vehicle"**.
- 3) Select the model year from the **"Model Year:"** pull-down menu.
- 4) In the **"Engine Size:"** field, enter the engine displacement in litres.
- 5) In the **"Curb (Net) Weight:"** field, enter the vehicle curb weight in kilograms. This can be obtained from the vehicle registration document or the door pillar.
- 6) Click the "Get Standards" button.

A new page will be generated that contains the specific standards for a vehicle matching the description you entered.

Alternately, to view the PDF file containing the standards tables for all vehicles, click the link provided near the bottom of the page. You must have PDF reader installed on your computer. For more information on PDF Reader software, see page 38.

AirCare Repair Newsletters

The AirCare program administration (PVTT) has published the AirCare Repair newsletter for many years. Articles in the AirCare Repair are extremely valuable for diagnostic technicians. Many of these articles have been re-published in various publications throughout North America.

Each issue of the AirCare Repair newsletter is accessible through RepairNet. Every attempt is made to minimize the size of the newsletters for easy download, however, if you are using a slow Internet connection, you may find download time to be quite long for some newsletters.

The newsletters are in Portable Document Format (PDF) and require that you have PDF Reader software on your computer in order to view them. You will find that there are many free options available for PDF reader software if you search the Internet for "pdf reader software".

Because the newsletters are provided in an electronic format, you can view them on screen or print them if you prefer. Also, you have the advantage of being able to quickly search through all of the article titles to locate something specific.

To use your browser's page search function to search the newsletter article titles for a key word:

- 1) From the RepairNet main menu select "**Resources**" and "**Newsletters**".
- 2) When the newsletter index screen appears, select "**Edit**" and "**Find (on This Page)...**"
- 3) In the "Find" dialog box that opens, click in the "Find:" field and type the key word you want to search for.

The browser will search the page from top to bottom for any occurrences of the word or phrase you entered. If any are found, the browser will highlight the first one it finds. If you want to search for other occurrences of the word or phrase, just click the "Find Next" button.

Your Repair Record

A summary of the repairs you have performed is available by selecting "**Your Repair Record**" from the "**User Info**" drop-down menu. For each repair, the summary lists the repair date, the work order, vehicle registration, make, result, and REI (see Figure 19).

Your Repair Record can be useful for recalling vehicle details when you only have a vague memory such as an approximate date that you worked on a particular vehicle. For example, if you want to check your REI on a particular vehicle you repaired you need to have its registration number. Your Repair Record allows you to look through the list of all vehicles you repaired, so you will probably recognize the vehicle by make or date or perhaps by work order number.

Note that the registration numbers shown are clickable links to the inspection history of each vehicle.

Repair Record for Technician 999999 (last 12 months)					
Repair Date	Work Order	Registration	Make	Result	REI
Feb 27, 2008	113635	99999999	TOYT	P	6.16
Jan 23, 2008	112194	99999999	JEEP	P	8.30
Jan 5, 2008	111404	99999999	HOND	P	7.90
Jan 2, 2008	111354	99999999	FORD	P	8.29
Dec 22, 2007	0	99999999	CHRY	Q	6.08
Nov 28, 2007	109416	99999999	JEEP	Q	5.21
Oct 17, 2007	107296	99999999	CHEV	P	8.63
Sep 26, 2007	106122	99999999	HYUN	P	8.13
Jul 31, 2007	103401	99999999	VOLV	P	8.24
Jul 14, 2007	102637	99999999	TOYT	P	7.41
Jul 9, 2007	102309	99999999	CHEV	C	7.34
Jun 26, 2007	101796	99999999	TOYT	P	8.28
Jun 9, 2007	101040	99999999	ACUR	P	7.23
Jun 5, 2007	100883	99999999	HOND	P	8.11
May 29, 2007	100600	99999999	CHRY	P	7.63
May 23, 2007	100340	99999999	FORD	P	7.64
May 12, 2007	99847	99999999	FORD	Q	5.31
Apr 3, 2007	98045	99999999	GEO	P	8.86
Mar 5, 2007	96601	99999999	JEEP	P	7.14
Mar 5, 2007		99999999	JEEP	P	7.80
Average REI (last 12 months)					7.49

NOTE: the REI data shown above is calculated whenever repair data has been properly submitted. If you submitted repair data after a vehicle was re-inspected, it will not be included in your repair record.

Figure 19: Your Repair Record

Change Your Personal Information

Under the **"User Info"** menu you'll find a selection titled **"Your User Details"**. With this selection you can change your password and/or your personal contact information. This includes your mailing address and your email address.

Your Password

Access to some parts of RepairNet is restricted to persons with valid log-in credentials. An ID number and password is assigned to all AirCare certified technicians and AirCare Certified Repair Centres by PVT.

AirCare certified technicians and repair centres are responsible for keeping their password private. Any use of RepairNet by anyone logged in using your ID is your responsibility.

To assist users in keeping their password private, RepairNet allows you to change your personal password any time you want.

Changing Your Technician Password

To change your technician password:

- 1) From the **"User Info"** drop-down menu select **"Your User Details"**
- 2) Click in the blank space **"Old Password:"** field and enter your current password.
- 3) Move to the **"New Password:"** field and enter your desired new password.
- 4) Move to the **"Confirm New Password:"** and enter your desired new password again. It must be exactly the same as you entered it in Step 3.
- 5) Click the "Change Password" button.

Your password is now changed. The next time you log in to RepairNet you must type your new password exactly the same way.

If You Have Forgotten Your Password

If you have changed your password but have forgotten what you changed it to, you will not be able to access restricted areas of RepairNet until you have your password reset.

To have your password reset, contact PVT at 604-453-5165. Once your account has been re-activated, you should log on and immediately change your password.

Your Contact Info

Although most communication from PVTT to certified technicians is now done electronically through RepairNet, it is still important to inform PVTT of any change in your mailing address.

To change your mailing address:

- 1) From the **"User Info"** drop-down menu select **"Your User Details"**
- 2) Click in the **"First Name:"** field by clicking your left mouse button anywhere in the field or, alternately, by pressing the tab key on your keyboard. Enter your name.
- 3) Move to the **"Last Name"** field and enter your new address.
- 4) Move to the **"Home Address"** field and enter your new city.
- 5) Move to the **"City"** field if needed and enter any additional information.
- 6) Move to the **"Postal Code"** field and enter your new postal code.
- 7) Enter your contact information in the **"Home Phone Number"**, and **"Work Phone Number"**, and **"Email Address"** fields as appropriate.
- 8) Click the "Update" button.